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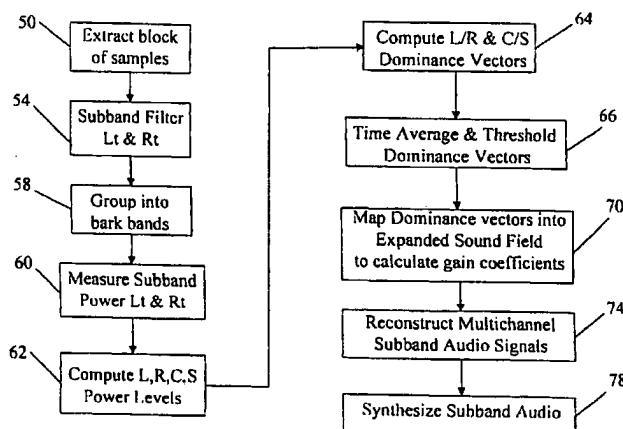
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF DECODING TWO-CHANNEL MATRIX ENCODED AUDIO TO RECONSTRUCT MULTICHANNEL AUDIO



(57) Abstract: The present invention provides a method of decoding two-channel matrix encoded audio (32) to reconstruct multichannel audio (34) that more closely approximates a discrete surround-sound presentation. This is accomplished by subband filtering (54) the two-channel matrix encoded audio, mapping (70) each of the subband signals into an expanded sound field (68) to produce multichannel subband signals, and synthesizing (78) those subband signals to reconstruct multichannel audio. By steering the subbands separately about an expanded sound field, various sounds can be simultaneously positioned about the sound field at different points allowing for more accurate placement and more distinct definition of each sound element.

## INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 H04R3/02 H04S3/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04S H04B H03G H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 630 168 A (NOKIA TECHNOLOGY GMBH) 21 December 1994 (1994-12-21)  column 2, line 7 -column 3, line 9 column 4, line 7-53	1-4, 6-9, 11-16, 18, 19
Y	US 5 319 713 A (WALLER JR JAMES K ET AL) 7 June 1994 (1994-06-07)  column 1, line 5-9 column 3, line 57 -column 10, line 28 column 11, line 25 -column 14, line 15	1-4, 6-9, 11-16, 18, 19
A	--- -/--	10



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Patent family members are listed in annex.

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- \*Z\* document member of the same patent family

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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